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Insect Control - Modoc
Buck Creek Unit

Alturas, California
May 16, 1933

REPORT
ON
BUCK CREEK INSECT CONTROL PROJECT
1933

Approved:

Forest Supervisor

Russell S. Bacon

Junior Forester

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Insect Control - Modoc
Buck Creek Project

INSECT CONTROL REPORT

There has been an increasing infestation of Western Pine Beetle (*Dendroctonus brevicornis*) in the ponderosa pine in the North Warner's during the past few years.

The area covered in this report lies entirely in the Buck Creek Unit where epidemic conditions prevail. The lower or south boundary is about half a mile north of the Buck Creek Ranger Station and extends in a northeasterly direction. The bulk of the area is in parts of sections 4 to 9 (T. 46 N., R. 15 E.) The attached map shows the detailed location of the area treated.

In the fall of 1932 the Bureau of Entomology made a detail survey of this project area and recommended treatment. As a result funds were set-up to treat 400 trees on about 1750 acres. Extreme low temperatures in late December 1932 caused some mortality to the pine beetles and samples of insect broods were secured and sent to the Bureau of Entomology at Berkeley on two different occasions to determine the results of the freeze. It was found that the mortality was only about 40%. It appeared this would not be enough to insure adequate control. Therefore, work was started on this project on March 27 and continued without interruption until April 15 when control work was completed.

Shortly after the work began Dr. Salzman visited the area and found a much heavier kill than was originally indicated. In view of the small size of the project and the fact that the work was well under way he recommended that it be carried on to completion. However, he suggested that trees or portions of a tree showing heavy kill should not be treated. This recommendation was carried out.

A detailed examination made by Dr. Salzman's crew during the control operations and it was found that very few trees had live bugs in them when over a height of 15 feet above ground had been reached.

CONTROL METHODS USED

The same methods of control were followed in this work that had been used in past projects on the Modoc. A regular 100% strip cruise was made in the spotting of the bug trees and the treating was accomplished by the peeling and burning process. A four man spotting crew consisting of one compassman and three spotters located the beetle infested trees on a 10 chain

strip across the section covering an average of approximately 160 acres a day. The low acreage spotted per day was due to the rough terrain encountered in this unit and also to the heavy snow left from the past winter. This amount spotted per day compares favorably with that on projects of a similar nature but not with other projects on the Hodge.

Two and three man units were used in each treating crew but for the bulk of the work a two man crew was used. As in the past it was found that the two man crews are more efficient and we feel that this size crew should be used wherever possible.

ORGANIZATION OF CONTROL WORK

As all the area treated was Government land, work was handled entirely by the Forest Service. Junior Forester Bacon had general charge of the project and was assisted by Ranger L. L. Smith and Foreman Joe Callaghan. The latter had general supervision over the crews at all times. Only 196 infested trees were found by the spotting crew and as a result there were never more than six treating crews working at one time. A gross wage of \$3.50 per day was paid the treaters and \$4.50 per day was paid the spotters. These were of course subject to the 10% Economy Act deduction. On account of the small size of the project and the fact that most of the men preferred to go to their homes nearby each night, no cook house was established. This eliminated a considerable amount of work in supervision and effected some saving in cost.

AMOUNT OF WORK ACCOMPLISHED

Number of Trees Spotted	196
Volume Spotted	293,950 Bd. ft.
Acres	1840

Everything that was spotted was treated so that the treating results are the same as the spotting results.

Average No. of Trees per Section	68.1
" D.B.H. per tree	30.7
" No. of logs per tree	4.5
" Volume per tree	1500 bd. ft.

In comparing these averages with those on the Ranger Projects of past years it was found that the average bd. ft. per tree runs from 50 to 100% higher.

LABOR AND COST DISTRIBUTION

	No. Man Days	Total Cost	Cost per Man day
Costkeeping and Other overhead items	30	100.00	3.33
Spotting (Wages, Spotting Crew)	46	216.00	4.60
Treating (Wages, treating crew)	159	517.25	3.25
Transportation (Wages, gas & oil)	246	29.75	.12
Equipment (Repairs & Replacement)	246	132.00	.54
Non-effective items (Fire suppression, etc.)	246	54.50	.22
Miscellaneous	246	20.30	.08
Total	-	1070.80	4.35

PROJECT COST SUBREGATIONS

	Total Costs	Cost per Man day
Salaries and Wages (All workers)	900.75	3.69
Board & Lodging (All workers)	-	-
Transportation (Gas. & Oil)	29.75	.12
Equipment (Tools, etc.)	111.00	.45
Miscellaneous (Overhead, Travel & Subsistence)	20.30	.08
Total for Project	1070.80	4.35

AVERAGE COSTS:

Cost per tree	Spotted (labor only)	\$1.10
" "	11 bd. ft. Spotted (labor only)	.12
" "	tree treated (including spotting)	5.46
" "	11 bd. ft. treated (including spotting)	3.64
" "	acre treated " "	.58
" "	man day of total labor	3.69

RECOMMENDATIONS

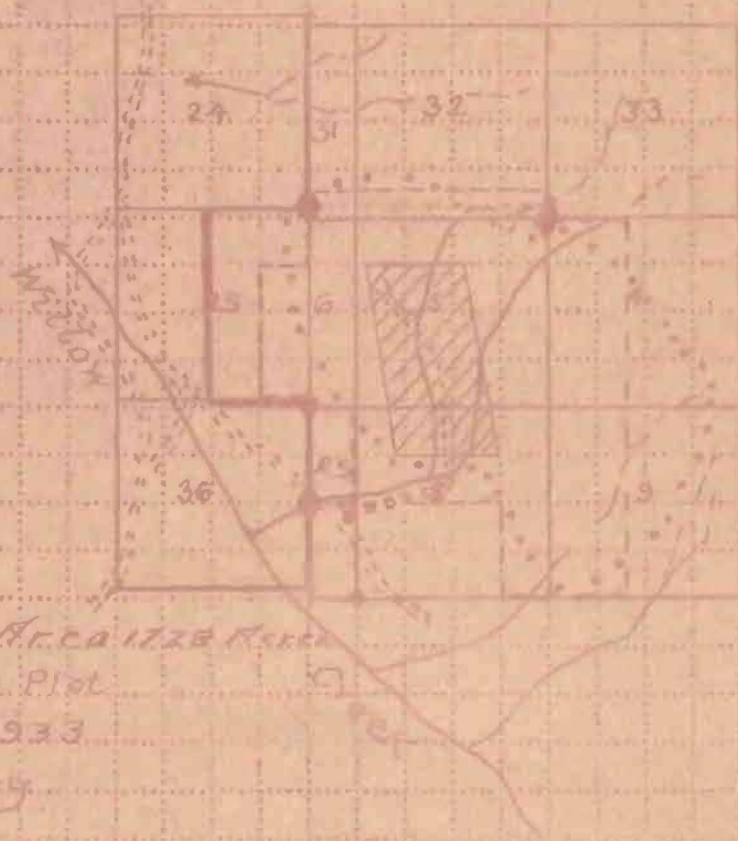
In view of the heavy freeze on the area during the past year it is believed that control work will not be necessary for a few years at least. Dr. Salban estimates the mortality to be approximately 75%. However, in view of the coming establishment of the Emergency Construction camps we plan to make a survey of this area during the coming fall with one of the insect survey crews that will be employed in other parts of the Forest.

INSECT CONTROL

Land District, Map Date 20 E

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North Warner, Insect Survey 46 N. R. 14-15 E. Sec 1
T. 47 N. R. 14-15 E.



Field work by

Date

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Approved